

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMER United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE .	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION N	
09/825,786	04/04/2001	Gerald W. Mills	723.035US1	1321	
21186 7	590 10/21/2004		EXAM	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.			JUNG, WI	JUNG, WILLIAM C	
P.O. BOX 293 MINNEAPOL	.O. BOX 2938 IINNEAPOLIS. MN 55402		ART UNIT	PAPER NUMBER	
,			3737		
			DATE MAILED: 10/21/2004	DATE MAILED: 10/21/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	09/825,786	MILLS ET AL.				
Office Action Summary	Examiner	Art Unit				
	William Jung	3737				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period we Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	86(a). In no event, however, may a reply be tin within the statutory minimum of thirty (30) day rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 05 Ja	nuary 2004.					
2a)⊠ This action is <b>FINAL</b> . 2b)☐ This	2a)⊠ This action is <b>FINAL</b> . 2b)□ This action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4) ⊠ Claim(s) 10-26 is/are pending in the application 4a) Of the above claim(s) is/are withdraw 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) 10-26 is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/or	vn from consideration.					
Application Papers						
9) The specification is objected to by the Examiner 10) The drawing(s) filed on is/are: a) access Applicant may not request that any objection to the of Replacement drawing sheet(s) including the correction of the original transfer and the correction is objected to by the Examiner	epted or b) objected to by the ldrawing(s) be held in abeyance. See lon is required if the drawing(s) is object.	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list of	s have been received. s have been received in Applicati ity documents have been receive i (PCT Rule 17.2(a)).	on No ed in this National Stage				
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 7.	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:					

Application/Control Number: 09/825,786

Art Unit: 3737

#### **DETAILED ACTION**

## Response to Arguments

1. Applicant's arguments filed January 5, 2004 have been fully considered but they are not persuasive. In regard to paragraphs 2-4, page 8 of the remark: The applicant asserts that Rapoport's device is restricted to lateral location of joint 25. However, Rapoport shows in figures 6 and 7 where the joint 25 is controlled with motor 30 and 332 where the joint 25 can be placed anywhere along the surface defined by plate 27. In addition, element 33 controls the height of the insertion platform. Therefore, the applicant is wrong to point out that Rapoport's device is confined to lateral movement. Also, Rapoport's device do not explicitly point out remote control module, it is inherent from flow chart shown in figure 2 where the position of the insertion joint 25 is in direct communication with imaging device such as MRI and calculate the desired slope of entry 145. Therefore, Rapoport supports all claimed elements in claims 10 and 20.

## Response to Amendment

## Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 10-15, 19, and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by *Rapoport* (US 5,598,845).

Page 2

Application/Control Number: 09/825,786

Art Unit: 3737

Claims 10, 11, 20, and 22: Rapoport discloses of an alignment device where it guides insertion of surgical tools through the guiding tube 28 as shown in figures 5-7 (col. 7, lines 54-67). The insertion guide is mounted to a base or support frame 23 and the movement of the insertion guide in controlled via remote control module or control computer 90 (col. 7, lines 37-50). The movement of the insertion guide is achieved via detachable swivel mechanism or actuator with adjustable joint 25 (col. 7, lines 20-36).

Claims 12 and 21: Rapoport further discloses of above system specifically in use for positioning of the insertion device about the skull in conjunction with MRI scan (col. 2, lines 36-60).

Claims 13-15, and 19: Rapoport discloses of inserting location marker or reference device M1, M2, M3, and so forth where these marker s are located in three dimensional data as shown in figure 2 (col. 6, lines 11-57, figure 2; col. 7, line 54 – col. 8, line 61).

#### Claim Rejections - 35 USC § 103

- 4: The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over \*Rapoport\* as applied to claims 10 and 13 above, and further in view of \*Truwit\* (US 5,993,463).

Rapoport substantially disclose of all claimed invention in claims 16 and 17 where the insertion guide has small open where the light source marks the position of entry for the insertion device. Truwit further teaches that the many surgical tools for insertion to a patient includes

Application/Control Number: 09/825,786

Art Unit: 3737

invention.

infrared (IR) or light emitting diode (LED) attached to the instrument to identify the position. Truwit also discloses that the such a device described above can be mounted to a stereotaxy device used to introduce surgical tool to the patient's skull (col. 2, lines 15-37). Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Rapoport to the teachings of Truwit to achieve the claimed

6. Claims 18 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rapoport as applied to claims 10 and 13 above, and further in view of Lee et al (US 3,893,449).

Rapoport substantially disclose of all claimed invention in claims 18 and 23-26. Lee et al discloses of an imaging device placed on a patient with remote control of the device to align the imaging device to an appropriate location. Lee et al also teaches that the location of the medical device such as ultrasound is referenced to identify the position using potentiometer (col. 1, line 59 – col. 2, line 11). Lee et al also disclose in figures 2 and 11 where the control mechanism includes pin joint actuator with rotary motor with rotating cable drive (col. 5, lines 36-64). Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Rapoport's aligning imaging device to teachings of Lee et al's position referencing system to achieve the claimed invention.

#### Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Page 4

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Jung, Ph.D. whose telephone number is 703-605-4364. The examiner can normally be reached on Mon-Fri 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 703-308-3552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 16, 2004

BRIAN L. CASLER SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 3700